

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): ~~A computer-readable medium containing computer-executable instructions for performing steps for updating routing information, said steps~~

An apparatus comprising one or more processing elements and memory, wherein the memory stores one or more instructions that, when executed by said one or more processing elements, performs operations comprising: maintaining one or more sets of routing information; wherein said maintaining one or more sets of routing information includes:

~~receiving a network topology change indication, the network topology change indication being one of a progressive series of network changes with at least one more associated network topology change indication of the progressive series of network changes expected to be received in the future;~~

~~computing an updated set of routing information based on the~~ a received network topology change indication, the updated set of routing information including changes in one or more routes, the network topology change indication being one of a progressive series of network changes with at least one more associated network topology change indication of the progressive series of network changes expected to be received in the future;

~~determining whether or not the updated set of routing information changes nexthop information for one or more routes; and~~

~~in response to determining that the new set of~~ said updated routing information does not change nexthop information for said one or more routes of said maintained one or more sets of routing information and said expectation of said at least one more associated network topology change indication of the progressive series of network changes to be received in the future, not updating determining not to update ~~said one or more sets of routing information based on the updated set of routing information.~~

Claim 2 (currently amended): ~~The computer-readable medium~~ The apparatus of claim 1, ~~wherein said steps comprise:~~ wherein said maintaining one or more sets of routing information includes: computing a second updated set of routing information based on a second received network topology change indication, the second updated set of routing information including changes in one or more routes, the second network topology change indication being one of the progressive series of network changes with at least one more associated network topology change indication of the progressive series of network changes expected to be received in the future; and in response to determining that the new second updated set of routing information does change nexthop information for said one or more routes of said maintained one or more sets of routing information, updating said one or more sets of routing information based on the second updated set of routing information.

Claim 3 (currently amended): ~~The computer-readable medium~~ The apparatus of claim 1, wherein the network topology change indication identifies one or more routing metric changes and a value identifying that said at least one more associated network topology change indication of the progressive series of network changes is expected to be received in the future.

Claim 4 (currently amended): ~~The computer-readable medium~~ The apparatus of claim 1, ~~wherein said steps further comprise:~~ wherein said maintaining one or more sets of routing information includes: in response to identifying a timeout condition corresponding to the updated set of routing information subsequent to said determination of not to update said one or more sets of routing information based on the updated set of routing information, updating said one or more sets of routing information based on the updated set of routing information.

Claim 5 (currently amended): A method for updating routing information, the method comprising: maintaining a routing information base; wherein said maintaining one or more sets of routing information includes:

receiving a network topology change indication, the network topology change indication including a route update of a progressive series of route updates and an indication to expect one or more route updates of the progressive series of route updates;

performing a shortest path first determination based on the route update and the routing information base to identify an updated set of routing information, including updated one or more routes; and

~~determining that the updated set of routing information does not change nexthop information for one or more routes included in the routing information base; and~~

in response to ~~said~~ determining that the updated set of routing information does not change nexthop information for one or more routes included in the routing information base and the indication to expect one or more route updates of the progressive series of route updates, determining not to update ~~updating~~ said one or more sets of routing information based on the updated set of routing information even though it includes said updated one or more routes.

Claim 6 (original): The method of claim 5, wherein the network topology change indication corresponds to switching to a computed backup path.

Claim 7 (currently amended): The method of claim 5, ~~comprising:~~ wherein said maintaining one or more sets of routing information includes: subsequent to said determination not to update said one or more sets of routing information, in response to identifying a timeout condition corresponding to the updated set of routing information, updating said one or more sets of routing information based on the updated set of routing information.

Claim 8 (currently amended): An apparatus for updating routing information, said apparatus comprising: means for maintaining one or more sets of routing information; wherein said means for maintaining one or more sets of routing information includes:

means for receiving a network topology change indication, the network topology change indication being one of a progressive series of network changes with at least one more associated network topology change indication of the progressive series of network changes expected to be received in the future;

means for computing an updated set of routing information based on the network topology change indication, the updated set of routing information including updated one or more routes;

means for determining not to update ~~not updating~~ said one or more sets of routing information based on the updated set of routing information, even though it includes said updated one or more routes, in response to determining that ~~the new set~~ said updated set of routing information does not change nexthop information ~~for said one or more routes~~ in said maintained one or more sets of routing information and said expectation of said at least one more associated network topology change indication of the progressive series of network changes to be received in the future.

Claim 9 (currently amended): The apparatus of claim 8, ~~comprising:~~ wherein said means for maintaining one or more sets of routing information includes: means for updating said one or more sets of routing information based on the updated set of routing information in response to determining that the new set of routing information does change nexthop information ~~for said one or more routes~~ in said maintained one or more sets of routing information.

Claim 10 (original): The apparatus of claim 8, wherein the network topology change indication identifies one or more routing metric changes and a value identifying that said at least one more associated network topology change indication of the progressive series of network changes is expected to be received in the future.

Claim 11 (currently amended): The apparatus of claim 8, ~~comprising:~~ wherein said means for maintaining one or more sets of routing information includes: means for, subsequent to said determining not to update said one or more sets of routing information, updating said one or more sets of routing information based on the updated set of routing information in response to identifying a timeout condition corresponding to the updated set of routing information.

Claim 12 (currently amended): An apparatus for updating routing information, the ~~method~~ apparatus comprising: means for maintaining a routing information base; wherein said means for maintaining a routing information base includes:

means for receiving a network topology change indication, the network topology change indication including a route update of a progressive series of route updates and an indication to expect one or more route updates of the progressive series of route updates;

means for performing a shortest path first determination based on the route update and the routing information base to identify an updated set of routing information, including updated one or more routes;

means for determining not to update ~~not updating~~ said one or more sets of routing information based on the updated set of routing information even though it includes said one or more updated routes in response to determining that the updated set of routing information does not change nexthop information for one or more routes included in the routing information base and the indication to expect one or more route updates of the progressive series of route updates.

Claim 13 (currently amended): The apparatus of claim 12, ~~comprising:~~ wherein said means for maintaining a routing information base includes: means for updating said one or more sets of routing information based on the updated set of routing information subsequent to said determination not to previously update the routing information base in response to identifying a timeout condition corresponding to the updated set of routing information.

Claim 14 (new): A method, comprising: maintaining one or more sets of routing information in a router, for use by the router in routing of packets; wherein said maintaining one or more sets of routing information includes:

computing an updated set of routing information based on a received network topology change indication, the updated set of routing information including changes in one or more routes, the network topology change indication being one of a progressive series of network changes with at least one more associated network topology change indication of the progressive series of network changes expected to be received in the future;

in response to determining that said updated routing information does not change nexthop information of said maintained one or more sets of routing information and said expectation of said at least one more associated network topology change indication of the progressive series of network changes to be received in the future, determining not to update said one or more sets of routing information based on the updated set of routing information.

Claim 15 (new): The method of claim 14, wherein said maintaining one or more sets of routing information includes: computing a second updated set of routing information based on a second received network topology change indication, the second updated set of routing information including changes in one or more routes, the second network topology change indication being one of the progressive series of network changes with at least one more associated network topology change indication of the progressive series of network changes expected to be received in the future; and in response to determining that second updated set of routing information does change nexthop information of said maintained one or more sets of routing information, updating said one or more sets of routing information based on the second updated set of routing information.

Claim 16 (new): The method of claim 14, wherein the network topology change indication identifies one or more routing metric changes and a value identifying that said at least one more associated network topology change indication of the progressive series of network changes is expected to be received in the future.

Claim 17 (new): The method of claim 14, wherein said maintaining one or more sets of routing information includes: in response to identifying a timeout condition corresponding to the updated set of routing information subsequent to said determination of not to update said one or more sets of routing information based on the updated set of routing information, updating said one or more sets of routing information based on the updated set of routing information.